

Guppy Development, Health and Diseases

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Unfortunately for the wild guppy is on the eating list of most predators that it shares its home waters with and so to combat this constant predatory pressure they have evolved to give birth to live young that are free swimming and can feed and fend for themselves from the time they are born.

The female gives birth every three-five weeks and depending on her age and size will give birth too between ten and one hundred plus young fish, she can also store the sperm of the male, so that if the males fall prey to one of the predatory fish, she can still give birth to a new batch of young as many as three or even six more times before she needs to find a male and mate again.

The female Guppy can have her first batch of young from the age of two and a half months and as late as two years old, but fertility starts to wane from nine months on, the optimum age I have found is from four months to eight months, which only gives you the opportunity to breed three to four times from the female before she starts to lose some of her fertility, although these three or four litters could give you 200 -300 fish to choose your next set of breeders from, so should not cause any problems in maintaining your chosen variety.

Livebearers are split into two groups in the main ovoviviparous and viviparous. In ovoviviparous fish, the embryo relies entirely on the yolk sac for nutrition, whilst in viviparous fish; the female via a placenta like structure nourishes the young fish. The Guppy falls partly between the two definitions although it is usually described as an ovoviviparous species, the female does contribute some nutrition to the developing embryo, this is why it is so important to feed the female Guppy with a wide variety of good quality foods, I have noticed that a well fed female especially during pregnancy will produce larger healthy fry than one who is not so well fed.

Male Development

Unlike most animals the Guppy continues to grow until the day it dies. However, the majority of growth is at the beginning of its life, however I have found that it is the first month in particular that will impact on the overall size of the Guppy, if you want good size Guppies that will do well on the show bench you must feed them well in the first four weeks of their lives, especially with newly hatched brine shrimp.

The male Guppy has defined growth stages.

- The first four months approximately is all about body size
- The next two months on average it is the turn of the caudal (tail) which takes over as the fastest growing part of the Guppy
- Then for the next three months or so it is the turn of the dorsal fin to take over as the fastest growing part.

Now this can be a bit of a problem when you are trying to choose your next breeding stock, as the fish that have big bodies at four months old may not develop the best caudal or dorsal fin, this is where good record keeping and close observation of your fish becomes very important because as you get to know your strain you will recognise certain traits and clues as to which fish will turn out to be the best balanced fish overall. The easiest way to do this is by keeping a number of males from each batch with different characteristics and keeping notes as to how each fish develops this way you will spot which fish in the future are most likely to achieve the look that you are aiming for, and will not have to devote as much tank space in the future to growing on your future breeder males.

One more observation is that each strain behaves differently with some strains fully grown at six months whilst others may be twelve months before all the growth spurts have finished; this is why it is important to know the characteristics of your own strain.

One tip concerning the male guppy is that some males develop very early on in their lives as early as 3-4 weeks but due to the amount of energy involved in developing this early sexual maturity these early developers tend to be much smaller than their late developing brothers who use their energy intake for growth with sexual maturity secondary in the development. This is probably nature's way of ensuring that sexually active males are always available.

To enable the male to deposit his sperm into the body of the female guppy, the males develop a special type of fin that looks like a stick with a small hook on the end, this is known as the gonopodium.

When the male attempts to mate with the female he rotates the gonopodium forward and to one side, the gonopodium forms a tube for the male's sperm packets to travel down. He inserts the gonopodium into the female's oviduct, located at her gravid spot. The hook at the end of the gonopodium holds it in place to allow for the transfer of the sperm packets to travel down the tube within the gonopodium.

Each sperm packet contains thousands of sperms, however in some strains especially Albino strains male fertility can be quite low so it is better to keep these in groups of say four females to three males as opposed to the normal trio of two females to one male.

Some personal observations of my own male Guppies are:

- That they seem to prefer the larger females to smaller ones
- They always prefer to pursue females that have very recently given birth
- Familiarity kills their interest, so if the males start to lose interest in the females separate them for a week and then when you put them back with the females the males tend to pursue the females with much more vigour.
- I have raised males separately from females and have found that when I put the males with the females for breeding the males are not very good at interacting with the females and it takes sometimes three weeks before the males learn how to approach the females in order to mate with them. I overcame this problem by separating the females that I intended

to use for my next breeders and leaving the females that I did not intend to use with the males, this way they knew how to approach the females and when I put the males with the females selected for breeding they pursued them instantly and successful mating was achieved in days, rather than weeks.

Female Development

In the early stages of Guppy development the males tend to grow quicker than the females, however, at about the 4 - week period the females catch-up and overtake their male companions, as the females are going to be twice the size of the males at maturity this outgrowing of the males is inevitable.

By the age of 7-8 months the female has achieved 90% of her maximum size, although she will continue to grow throughout her whole life.

I always keep my females that I intend to use for breeding separate from my males, I have noticed that females who are separated from males at the age of 4-5 weeks and then grown on with other females tend to always outgrow the females who are left with the males and also tend to look healthier. This is probably due to the fact that they are not been continually chased by the males and can eat much more as they are not been chased away by the ever-active male.

The female Guppy has a dark spot at the base of the anal fin called a gravid spot, the gravid spot is there as soon as they are born but not easy to spot, however by the age of 3 weeks it is much more visible and by the age of 4 weeks it is possible to separate the females with visible gravid spots from the males fairly easily. You can then choose which females you want to use for your future breeding stock.

One exception to this are the Albino varieties, whilst the gravid spot is still there it is not easy to see due to their colour, so you will need to be very observant and may need to use a magnifying glass to help.

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